

What is claimed is;

1. A radiation image detecting system comprising a solid radiation detector comprising a conversion means which converts radiations bearing thereon image information to electric charges, and a two-dimensional image detecting means which detects the electric charges obtained by the conversion and is formed by a two-dimensional array of a plurality of solid radiation detecting elements, each corresponding to a picture element,

wherein the improvement comprises a high frequency component attenuation means which attenuates high frequency components of the electric charges bearing thereon high frequency components of the image information not lower than a Nyquist frequency, which is defined by the pitches of the array of the solid radiation detecting elements, so that aliasing noise due to the high frequency components of the image information not lower than the Nyquist frequency becomes not stronger than 30% of intrinsic noise power at a frequency equal to a half of the Nyquist frequency.

2. A radiation image detecting system as defined in Claim 1 in which the high frequency component attenuation means comprises a phosphor layer which generates visible light upon exposure to radiations bearing thereon the image information and is provided on the conversion means side of the solid radiation detector and the conversion means generates electric charges upon exposure to the visible

light generated by the phosphor layer.

3. A radiation image detecting system as defined in Claim 2 in which the phosphor layer is removable.

5 4. A radiation image detecting system as defined in Claim 2 in which the thickness and/or the material of the phosphor layer is variable.